



PATENT SPECIFICATION

240,652



Application Date : Oct. 11, 1924. No. 24,135 / 24.

" " June 23, 1925. No. 16,205/25.

One Complete Left : July 9, 1925.

Complete Accepted : Oct. 8, 1925.

PROVISIONAL SPECIFICATION.

No. 24,135, A.D. 1924.

Apparatus for Use in Teaching or Practising Lawn-tennis.

I, HAROLD PENN-GASKELL, B.A., of 17, Earl's Court Square, S.W. 5, in the County of London, of British nationality, do hereby declare the nature of this invention to be as follows:—

This invention relates to means applicable for use in teaching or practising lawn-tennis, particularly return strokes as distinguished from service strokes.

10 The apparatus or appliance consists in a base-plate to which is attached a vertical pedestal surmounted by a length of flexible material, such as a moderately stiff india-rubber tube; the latter terminating at its upper extremity in a cup-shaped enlargement adapted for the reception of a tennis-ball.

20 With a view to varying the height at which the tennis-ball is presented, the pedestal is formed in two or more lengths arranged telescopically; and each of these may consist of a tube which may be split or otherwise adapted to afford sufficient grip to maintain the pedestal at the height to which it may be extended. The

india-rubber tube or other flexible material which extends between the upper extremity of the pedestal and the ball-receptacle is sufficiently stiff to maintain an erect attitude, but is nevertheless capable of readily yielding when struck by the racket in playing the ball supported thereon. The length of the flexible portion of the support is moreover such as to provide against the rigid portion of the pedestal being struck by the racket.

I have described the employment of a telescopic pedestal for enabling the height at which the ball is presented to be varied, but I do not restrict myself thereto, as it will be obvious that the same object may be attained by other means. The ball-receptacle and its yielding support may, for example, be mounted on a pedestal of the "lazy-tongs" type.

Dated the 9th day of October, 1924.

G. G. M. HARDINGHAM,
Clun House, Surrey Street, London,
W.C. 2.

PROVISIONAL SPECIFICATION.

No. 16,205, A.D. 1925.

Apparatus for Use in Teaching or Practising Lawn-tennis.

I, HAROLD PENN-GASKELL, B.A., of 17, Earl's Court Square, S.W. 5, in the County of London, of British nationality, do hereby declare the nature of this invention to be as follows:—

This invention relates to means applicable for use in teaching or practising lawn-tennis and consists in apparatus of the character described in the Specification which accompanied my Application for Letters Patent, filed on

the 11th day of October, 1924, No. 24,135, and wherein the tennis-ball about to be struck was mounted upon the upper extremity of a flexible support, such as a moderately stiff india-rubber tube.

Instead of supporting the ball in the manner above referred to, it is sometimes deemed preferable to suspend it in a flexible carrier; and with this object, the telescopic or other pedestal referred to in my aforesaid specification is provided

with an arm which projects laterally a sufficient distance to admit of the ball being suspended therefrom, clear of the said pedestal. This projecting arm may
5 moreover be mounted in the pedestal in such a manner as to afford it freedom to rotate when the ball is struck.

For holding the ball suspended, I employ a clip comprising a pair of levers arranged crosswise and pivotted together.
10 The lower arms of these levers are furnished with gripping pads adapted to engage the opposite sides of the ball; whilst the upper arms of the said levers are, by means of cords, preferably
15 inclined towards one another, attached at suitable points to the laterally extending arm of the pedestal. In order to avoid injury to the racket, the lower arms of
20 these levers are preferably formed of india rubber tubing internally stiffened with spiral wire in conjunction with a

filling material adapted to maintain the wire spirals in their proper relative positions, and thereby to preserve the arms
25 against serious distortion as the result of being struck by the racket.

According to an alternative construction of suspending clip, I employ a cord sling about which is arranged an india-
30 rubber ring. In the extremity of the loop may be fixed a small pad to form a seat for the ball. After placing the latter in position in the loop, the ring is slid down sufficiently to tighten the cords
35 about the ball and to hold it in the loop, but without presenting any appreciable resistance to its release upon being struck by the racket.

Dated the 19th day of June, 1925. 40

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COMPLETE SPECIFICATION.

Apparatus for Use in Teaching or Practising Lawn-tennis.

I, HAROLD PENN-GASKELL, B.A., of
45 17, Earl's Court Square, S.W. 5, in the County of London, of British nationality, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly
50 described and ascertained in and by the following statement:—

This invention relates to means applicable for use in teaching or practising lawn-tennis, particularly return strokes
55 as distinguished from service strokes.

The apparatus or appliance consists in a base-plate to which is attached a vertical pedestal capable of variation in height and surmounted by a length of
60 flexible material, such as india rubber tube possessing sufficient stiffness to preserve its erect attitude, but sufficient flexibility to give readily when struck by the racket; its upper extremity being
65 adapted for the support of a tennis-ball. Or the tubular pedestal may be furnished with a crank-shaped arm, adapted for supporting the ball at a certain lateral distance from the pedestal and capable
70 of revolving thereabout. According to alternative methods of construction, instead of the ball being supported from below, it is suspended from a laterally projecting arm and is held between clips
75 or engaged in the loop of a cord.

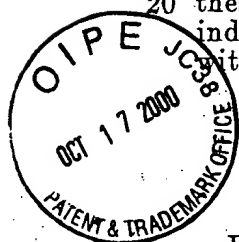
Apparatus adapted for carrying my invention into effect is illustrated in the accompanying drawings, whereof Fig. 1 is a side elevation of the complete

is supported out of centre with the pedestal. Figs. 3 and 4 illustrate means for suspending the ball from an arm which projects laterally from the pedestal
85 as in Fig. 2 and is capable of being rotated thereabout.

With a view to varying the height at which the tennis-ball *a* is presented, the pedestal *b* is formed in two or more
90 lengths, arranged telescopically; and each of these may consist of a tube which may be split or furnished with set screws for enabling the pedestal when extended to be maintained at the desired height.
95 The india-rubber or other flexible tube *c* which surmounts the pedestal is sufficiently stiff to maintain an erect attitude, but is nevertheless capable of readily yielding when struck by the racket in
100 playing the ball supported thereon. The length of the flexible portion of the support *c* is moreover such as to provide against the rigid portion of the pedestal *b* being struck by the racket.
105

I have described the employment of a telescopic pedestal for enabling the height at which the ball is presented to be varied and for convenience in transport; but I do not restrict myself thereto, as it
110 will be obvious that such a method of construction is not essential.

When it is preferred to present the ball at a distance from the pedestal laterally, I employ an arm *d* bent at right angles;
115 one portion thereof being inserted in the upper portion of the pedestal whilst to



which extends upwards and terminates in a cup-shaped seat for the reception of the ball. This tube *e* is only slightly flexible; but when the ball *a* is struck, the entire crank-shaped support *d e* readily yields to the impact by rotating bodily in and about the pedestal *b*.

Instead of supporting the ball in the manner above referred to, it is sometimes deemed preferable to suspend it; and with this object, the pedestal is provided with an arm *e*¹ which projects laterally a sufficient distance to admit of the ball being suspended clear of the said pedestal. The said arm is mounted in the pedestal in such a manner as to afford it freedom to rotate when the ball is struck, as previously described with reference to Fig. 2.

For holding the ball suspended, I employ a clip comprising a pair of levers *f f* arranged crosswise and pivotted together as shown in Fig. 3. The lower arms of these levers are furnished with gripping pads *g g* adapted to engage the opposite sides of the ball; whilst the upper arms of the said levers are, by means of cords *h h*, preferably inclined towards one another, attached at suitable points to the laterally extending arm *e*¹. In order to avoid injury to the racket, the lower arms of the levers *f f* are preferably formed of india rubber tubing reinforced internally with spiral wire in conjunction with a filling material adapted to maintain the wire spirals in their proper relative positions, and thereby to preserve the arms against serious distortion as the result of being struck by the racket.

According to an alternative construction of suspending clip, illustrated in Fig. 4, I employ a cord sling *j*, about which is arranged an india-rubber ring *k*. In the extremity of the loop may be fixed a small pad *j*¹, to form a seat for the ball. After placing the latter in position in the loop, the ring *k* is slid down sufficiently to tighten the cords about the ball and to hold it in the loop, but without presenting any appreciable resistance to its release upon being struck by the racket.

Having now particularly described and ascertained the nature of my said inven-

tion and in what manner the same is to be performed, I declare that what I claim is:—

1. Apparatus for use in teaching or practising lawn-tennis, consisting of a pedestal capable of variation in height and surmounted by a ball-support, preferably of tubular rubber, possessing sufficient rigidity to maintain its erect attitude, but capable of offering but little resistance to lateral movement when struck by the racket. 55 60 65

2. For use in apparatus of the character defined in the preceding claiming clause, the employment, for supporting a tennis-ball at a distance from the metal portion of the pedestal, of a tubular ball-carrier, composed of india-rubber of high flexibility and comparatively little rigidity. 70

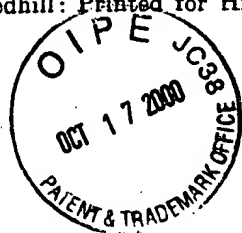
3. For use in apparatus of the character defined in the first claiming clause, the employment of a crank-shaped ball-carrier whereof one arm extends downwards in or about the pedestal, one arm extends upwards and carries a seat for the ball, whilst the intervening portion extends horizontally and is capable of rotating about the pedestal. 75 80

4. The herein described alternative means for presenting a tennis-ball in position for being struck by a racket, such means consisting in suspending, from a laterally projecting arm capable of pivoting about the pedestal, a pair of levers arranged crosswise and pivotted together, their lower arms being furnished with gripping pads adapted to engage the opposite sides of the ball, whilst their upper arms are attached, by means of cords, to the laterally projecting arm. 85 90 95

5. As an alternative to the ball-suspending clip referred to in the last preceding claim, the employment of a cord sling, the loop of which carries a seat for the ball; the said sling being furnished with a sliding ring, which, when moved towards the ball, serves to tighten the sling against the sides thereof. 100

Dated the 3rd day of July, 1925. 105

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[This Drawing is a reproduction of the Original on a reduced scale.]

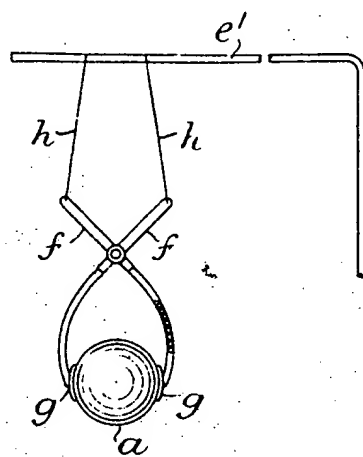


Fig. 3.

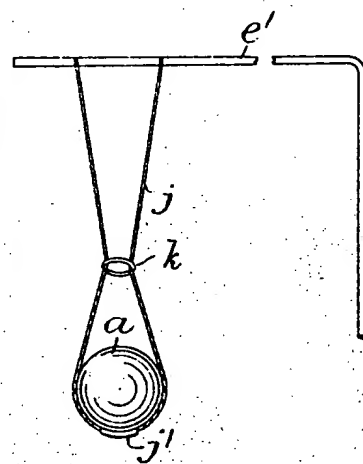


Fig. 4.

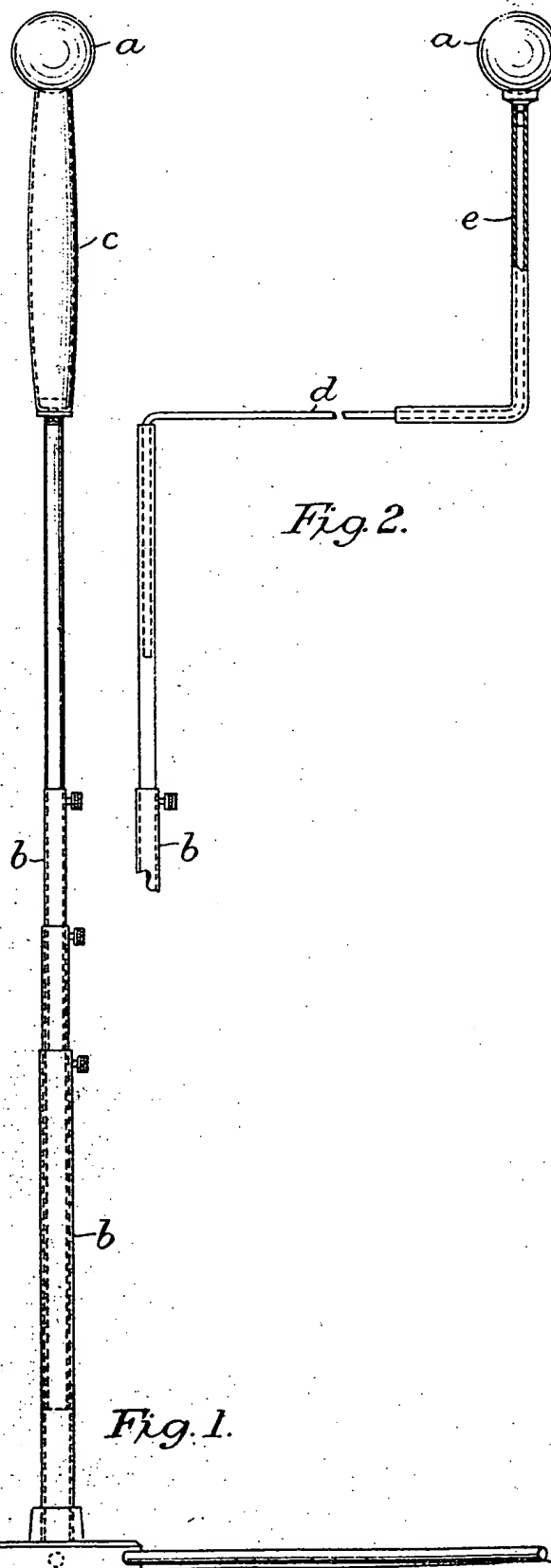


Fig. 2.

Fig. 1.